



white heelsplitter

Lasmigona complanata

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The shell of the white heelsplitter mussel is large, rounded, and compressed. The shells of younger individuals are very thin, but older shells are slightly thicker. The anterior end is rounded and the posterior is rounded to bluntly pointed. A large “wing” is present behind the umbo (hump near the hinge). It often has several folds or ridges that extend to the side of the shell. The dorsal margin is straight. The ventral margin is straight or slightly curved. Shallow ridges extend from tubercles (bumps) on the umbo to the posterior portion of the shell. The outside of the shell is smooth except for the wing. It is green or greenish brown in young shells, often with faint rays. Older shells are dark brown to black. The inside of the shell is bluish white or white and iridescent toward the posterior end. The white heelsplitter may reach lengths up to eight inches.

Natural History

The white heelsplitter is found in pools or sluggish streams with a mud, sand, or fine gravel bottom. It is rare in the Upper Mississippi River and is found in backwater habitats along the Missouri River upstream

of the Iowa border. Freshwater mussel distribution in Iowa is not well documented. They have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. Hosts for this mussel include common carp, green sunfish, orange-spotted sunfish, largemouth bass, white crappie, and longnose gar. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

Mississippi River; Missouri River; interior rivers and streams; constructed lakes, ponds, and reservoirs

Iowa Status

uncommon; native

Iowa Range

northeastern two-thirds of Iowa; Missouri River

Bibliography

Iowa Department of Natural Resources. 2001.
Biodiversity of Iowa: Aquatic Habitats CD-ROM.